

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claims 7-10 and 12 have been cancelled. New Claims 13-14 correspond to Claims 1 and 11, respectively, except that they recite the temperature controller in means plus function format.

According to a feature of the invention set forth in all of the claims, a light source unit includes a temperature controller for keeping the light source at a constant temperature, as well as a light detector for detecting light from a light mixer capable of detecting a plurality of different wavelengths of light. A light source controller controls the luminance of each of the plurality of light source elements based upon values detected by the light detector. For example, referring to the exemplary embodiments of Figures 2 and 5, a temperature control section 207 includes a cooling/heating part 208, for example a cooling fan, electric heater or peltier element (page 23, lines 13-22). The controller 209 controls the cooling/heating part 208 based upon the detected temperature so that the detected temperature value approaches a given value or falls within a given range (paragraph bridging pages 23-24).

Claims 1-5 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. patent publication 2002/0097000 (Muthu et al). However, Muthu et al fails to disclose the claimed temperature controller for keeping the light source at a constant temperature.

Muthu et al is directed to a light control system comprising a plurality of LEDs 22, 24 and 28, wherein a temperature feedback sensor 32 is provided to obtain the junction temperature of the LEDs. Muthu et al recognizes that the chromaticity coordinates of the LED light sources can be estimated based on the junction temperatures as measured by the controller 34 since the characteristics of the LED light sources vary with temperature. However, Muthu et al lacks disclosure of an effort to maintain the light sources at a constant temperature and control the luminance of the light sources based upon light values detected

by a light detector. Rather, the detected temperature of the LED junctions in Muthu et al is used to estimate the chromaticity coordinates of the LED light sources (paragraph [0031]), and the controller derives a required output lumen fraction for each light source and controls a feed forward temperature compensator 70 which controls the LEDs to provide a desired lumen output fraction (paragraphs [0032]-[0033]). That is, although Muthu et al measures the LED temperatures and recognizes that this affects chromaticity, the teaching of the reference is that the luminance of the individual LEDs is then adjusted such that the light source provides light at a desired color temperature. There is no disclosure of temperature control for keeping the light sources at a constant temperature. Claim 1 and its dependent claims, as well as Claim 11, therefore define over this reference. Similarly, new Claims 13 and 14, which correspond to Claims 1 and 11 except that they recite the temperature controller in “means plus function” format, also define over this reference.

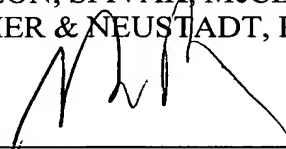
Concerning the rejection of Claim 6 under 35 U.S.C. § 103 as being obvious over Muthu et al in view of U.S. patent 5,831,686 (Beretta), it is noted that Beretta was cited to teach the feature of dependent Claim 6 whereby N number of optical sensors corresponds to N number of colors. However, whatever teaching Beretta may have in this respect, it provides no suggestion for modifying Muthu et al such that a temperature controller keeps the light source at a constant temperature. Similarly, U.S. patent 6,521,879 (Rand et al), which was cited in combination with Muthu et al to reject Claim 11, was simply cited to teach the utility of the light source and provides no teaching for the claimed temperature controller. The claims are therefore believed to define over any combination of the above references.

The Title of the invention and drawings have been revised as required.

Applicant therefore believes that the present application is in a condition for allowance and respectfully solicits an early Notice of Allowability.

Respectfully submitted,

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IN THE DRAWINGS

Please replace the sheet of drawings including Figure 2 with the attached replacement sheet in which the individual elements 201a, 201b and 201c of optical sensor 201 are illustrated.

Attachment: 1 sheet of replacement drawings.